



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,302	07/03/2003	Andreas Kaupert	(E) 1840 US	8262
- 7590 11/02/2006				
M. Robert Kestenbaum 11011 Bermuda Dunes NE Albuquerque, NM 87111			EXAMINER PATEL, VINIT H	
			ART UNIT 1764	PAPER NUMBER

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/614,302

Applicant(s)

KAUPERT ET AL.

Examiner

Vinit H. Patel

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims are rejected under 35 U.S.C. 102(b) as being anticipated by Kawamura USP 4,789,331.

Regarding claim 1, Kawamura teaches an evaporator arrangement, particularly for the production of a hydrocarbon/mixing material mixture which can be decomposed for hydrogen recovery in a reformer, including a porous evaporator medium (10), a hydrocarbon supply duct arrangement (Fig. 1) for supplying hydrocarbon to the porous evaporator medium (10), and also a mixing material conducting arrangement [Abstract, 18] for conducting through the evaporator medium (10) at least a portion of the mixing material provided for mixture formation (Fig. 1).

Regarding claim 2, Kawamura teaches the evaporator arrangement according to claim 1, wherein the evaporator medium (10, small apertures through the wick material) has numerous mixing material passage apertures (Fig. 1).

Regarding claim 3, Kawamura teaches the evaporator arrangement according to claim 1, wherein an electrically operable heating device (C4/L38-53) is associated with the evaporator medium (10) (Fig. 1).

Regarding claim 4, Kawamura teaches the evaporator arrangement according to

claim 3, wherein the heating device [Fig. 1] is arranged--in relation to the flow of mixing material through the evaporator medium (10)--on an upstream side of the evaporator medium (10) (C3/L10-C4/L66; Fig. 1).

Regarding claim 5, Kawamura teaches the evaporator arrangement according to claim 4, wherein the heating device (18) has associated with it a screening arrangement (8, plate) to screen it off from the mixing material flowing to the evaporator medium (Fig. 1).

Regarding claim 6, Kawamura teaches the evaporator wherein the screening arrangement includes a screening plate (8, plate) having mixing material passage apertures (Fig. 1).

Regarding claim 7, Kawamura teaches the evaporator arrangement wherein the heating device (18) has a heating element (15) which runs at least locally curved or spirally (Fig. 1).

Regarding claim 8, Kawamura teaches the evaporator arrangement according to claim 7, wherein the evaporator medium (10) is at least partially arranged in a spatial region surrounded by the heating element (15) (Fig.1).

Regarding claim 9, Kawamura teaches the evaporator arrangement wherein an electrically operable mixing material heating device (Fig. 1) is provided in an upstream region in relation to the through-flow of the mixing material through the evaporator medium (10) of the mixing material conducting arrangement and spaced apart from the evaporator medium (Fig. 1).

Regarding claim 10, Kawamura teaches the evaporator arrangement according

to claim 1, wherein a mixing/combustion chamber (Fig. 1) is provided downstream of the evaporator medium (10) with respect to the flow of mixing material through the evaporator medium (10), and the mixture introduced into the said chamber (Fig. 1) can be ignited therein by means of an ignition member [15] (Fig. 1).

Regarding claim 11, Kawamura teaches the evaporator having a heat exchanger arrangement (C3/L13-27).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12- 15 is rejected under 35 U.S.C. 103(a) as being obvious over Kawamura USP 4,789,331, in view of Baker, USP 4,365,006.

Regarding claims 12 and 13, Kawamura teaches the mixing material comprises air (C3/L29-C4/L66) but does not explicitly disclose the device comprises a reforming catalyst. However, it is well known in the art that liquid fuel burner/vaporizers are used in combination to heat/vaporize liquid fuels for reformer apparatus containing reformer catalysts (See Baker, USP 4,365,006, Fig. 1) and it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kawamura with Baker to achieve an entirely expected result of using a burner to heat/vaporize liquid fuel for use in a reforming apparatus.

Regarding claim 15, Kawamura teaches the exhaust gas purification system, including an evaporator (C1/L34-39).

***Response to Arguments***

Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinit H. Patel whose telephone number is (571) 272-0856. The examiner can normally be reached on 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



VHP

